

What is claimed is:

1. A system for providing third-party call control in a LAN-enabled telecommunications environment comprising:

5 a call-control mechanism connected to the LAN for providing service logic and routing intelligence for initiating call connections;

a control application running on the call-control mechanism, the control application providing the service-logic description and connection request command instruction for implementing third-party controlled call connections;

10 a call-switching mechanism accessible to the call-control mechanism, the call-switching mechanism for providing an abstract state of switching matrix and for commutation of external and internal call legs making up a connected call; and

15 a commutation application running on the call-switching mechanism, the commutation application for making and breaking call connections according to instructional commands sent from the control application;

characterized in that the call-control mechanism using the control application sends primitive text commands to the call-switching mechanism, which utilizing the commutation application, receives, reads and implements the text commands containing all of the service logic and instructions required to successfully construct call connections and wherein the call-switching mechanism by virtue of the commutation application sends notification of success or failure regarding implementation of received commands back to the control application.

2. The system of claim 1, wherein the telecommunications environment includes a voice over Internet protocol (VoIP) network.

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3. The system of claim 1, wherein the call-control mechanism is a computer-telephony-integration (CTI) server.

5 4. The system of claim 1, wherein the call-switching mechanism is a PBX telephony switch.

5. The system of claim 1, wherein the call-switching mechanism is an ACD telephony switch.

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6. The system of claim 2, wherein the call-switching mechanism is a voice over Internet protocol (VoIP) gateway.

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7. The system of claim 1, wherein the control application contains a call model, the attributes thereof defined in low-level descriptor language.

8. The system of claim 7, wherein the low-level descriptor language is extensible markup language (XML).

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9. The system of claim 7, wherein the commutation application contains a representation of a switching matrix, the attributes thereof defined in low-level descriptor language.

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10. The system of claim 9, wherein the low-level descriptor language is extensible markup language (XML).

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11. The system of claim 1, wherein the telecommunications environment is an enterprise communications center connected for communication to a dedicated telephone network and to a data-packet-network.

5 12. The system of claim 11, wherein the telephone network is a public switched telephone network (PSTN) and the data-packet-network is the Internet network.

13. A method for providing third-party call control in a LAN-enabled telecommunications environment comprising:

10 (a) providing a call-control-entity, the entity having a single call model, the call model containing service logic, port identifications and identification of possible endpoints and gateways within the telecommunications environment;

15 (b) expressing the singular attributes of the call model using a low-level descriptor language;

(c) providing a physical and/or virtual switching matrix, the switching matrix containing the physical and/or virtual port identifications and states thereof expressed in the low-level descriptor language;

20 (d) sending a command using the low-level descriptor language to a controller of the switching matrix, the command to initiate a call connection based on selected attributes of the call model;

(e) processing the command at the switching matrix; and

25 (f) notifying the call-control-entity of the results of command processing at the switching matrix.

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14. The method of claim 13 wherein in step (a), the call-control-entity is a computer-telephony-integration server and the telecommunications environment includes a Voice over Internet Protocol (VoIP) network.

5 15. The method of claim 13 wherein in step (b), the low-level descriptor language is extensible-markup-language (XML).

16. The method of claim 13 wherein in step (c), the switching matrix is that of a PBX telephone switch.

10 17. The method of claim 13 wherein in step (c), the switching matrix is that of an Internet protocol router.

18. The method of claim 13 wherein in step (c), the switching matrix is that of a Voice over Internet Protocol (VoIP) gateway.

15 19. The method of claim 13 wherein in step (d), the controller of the switching matrix is a software application that understands the low-level language.

20 20. The method of claim 13 wherein the telecommunications environment comprises the telecommunications center connected for communication to a telephone network and to a data-packet-network.

25 21. The method of claim 20 wherein the telephone network is a public-switched-telephone-network (PSTN), and the data-packet-network is an Internet network.

22. The method of claim 13 wherein in step (e), processing the command includes setting up and tearing down call legs.

23. The method of claim 13 wherein in step (f), notification of results is accomplished using low-level descriptor language.

24. The method of claim 23 wherein in step (f), the low-level language is extensible markup language (XML).

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